

Army Regulation 56–3

Surface Transportation

Management of Army Rail Equipment

**Headquarters
Department of the Army
Washington, DC
31 August 2009**

UNCLASSIFIED

SUMMARY of CHANGE

AR 56-3

Management of Army Rail Equipment

This major revision, dated 31 August 2009--

- o Assigns U.S. Army Tank-automotive and Armaments Command Life Cycle Management Command as the initial requirements document developer for all locomotives, rolling stock, and track maintenance equipment (para 1-4a).
- o Designates the Deputy Chief of Staff, G-4 as chairman of the Inter-service Locomotive Management Committee (para 1-4b(4)).
- o Provides the U.S. Army Materiel Command managerial authority of rail functions at all Army Materiel Command installations (para 1-4c(3)).
- o Adds Defense Generator and Rail Center responsibilities (paras 1-4d(8) through 1-4d(11)).
- o Details reassigned responsibilities of the Installation Management Command (paras 1-4f, 3-2, 6-1, 8-2).
- o Recommends the General Code of Operating Rules, a commercial publication adopted for use by the U.S. Army (para 3-2).
- o Details the Rail Crew Qualification Course, a newly developed course (para 3-4).
- o Outlines new responsibilities for installations in the maintenance areas of Field and Sustainment (para 7-1).
- o Updates criteria for repair of rail equipment to reflect new criteria for repair of rail equipment (para 8-2).
- o Add numbering guide for standard commercial type and special rail cars (app B).
- o Outlines a 20-year program to replace the entire Army locomotive fleet (app C).

Surface Transportation

Management of Army Rail Equipment

By Order of the Secretary of the Army:

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General, United States Army
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Official:


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Secretary of the Army

History. This publication is a major revision.

Summary. This regulation implements DOD 4140.50–R. It prescribes Army policies and command responsibilities for maintaining and operating rolling stock, track maintenance equipment, and locomotives; providing theater military railway service; and operating utility railroads. It also provides guidance for using common carrier railroads for switching service at installations.

Applicability. This regulation applies to the Active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve, unless otherwise stated.

Proponent and exception authority. The proponent of this regulation is the

Deputy Chief of Staff, G–4. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity’s senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific guidance.

Army management control process. This regulation does not contain management control provisions.

Supplementation. Supplementation of this regulation and establishment of command and local forms are prohibited without prior approval from the Deputy Chief of Staff, G–4 (DALO–FP), 500 Army Pentagon, Washington, DC 20310–0500.

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Deputy Chief

of Staff, G–4 (DALO–FP), 500 Army Pentagon, Washington, DC 20310–0500.

Committee Continuance Approval.

The Department of the Army committee management official concurs in the establishment and/or continuance of the committee(s) outlined herein. AR 15–1 requires the proponent to justify establishing/continuing committee(s), coordinate draft publications, and coordinate changes in committee status with the Department of the Army Committee Management Office (AARP–ZA), 2511 Jefferson Davis Highway, Taylor Building, 13th floor, Arlington, VA 22202–3926. Further, if it is determined that an established “group” identified within this regulation, later takes on the characteristics of a committee, the proponent will follow all AR 15–1 requirements for establishing and continuing the group as a committee.

Distribution. This publication is available in electronic media only and is intended for command levels C, D, and E for the Active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

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Glossary

Chapter 1 Introduction

1-1. Purpose

This regulation prescribes Department of the Army (DA) policies and procedures for operation and maintenance of rolling stock, locomotives, and track maintenance equipment. It applies to all activities and installations that use Army-owned rail equipment. This regulation reforms procedures that pertain to the revisions of DOD rail policy.

1-2. References

Required and related publications and prescribed and referenced forms are listed in appendix A.

1-3. Explanation of abbreviations and terms

Abbreviations and special terms used in this regulation are explained in the glossary.

1-4. Responsibilities

a. The Deputy Chief of Staff, G-3/5/7 will ensure that the requirements documents for locomotives and track maintenance equipment submitted by the U.S. Army Tank-automotive and Armaments Command (TACOM) Life Cycle Management Command (LCMC) are incorporated into the Structure and Composition System file after approval through normal in-process review procedures.

b. The Deputy Chief of Staff, G-4 will—

- (1) Develop and promulgate Army rail policy formulation.
- (2) Provide general staff policy and program guidance for Army rail management.
- (3) Act as proponent for this regulation.
- (4) Serve as Chairman of the Inter-Service Locomotive Management Committee (ILMC).
- (5) Hold an annual meeting with participation from all the Services.
- (6) Upon request, review standards established by each Service for utility rail equipment. While such equipment is not subject to Association of American Railroads (AAR) or Federal Railway Administration (FRA) regulations, every effort will be made to comply with FRA regulations for domiciled equipment utilized on Army installations.
- (7) Provide technical information on new rail programs, innovations, and equipment that would enhance the performance capability of installation rail.
- (8) Recommend procurement of new locomotives and rail equipment on the basis of performance factors, industry standards, and compliance with Federal safety and environmental regulations (within each Service's funding constraints).
- (9) Determine programming and funding requirements for installation rail and ancillary equipment based on the Army Rail Locomotive Procurement Plan (see app C).

c. The Commanding General, U.S. Army Materiel Command (AMC) will—

- (1) Provide overall procurement responsibility for DA rail equipment.
- (2) Implement locomotive and railcar maintenance programming and funding for all Army installations.
- (3) Manage, program, and execute the assigned garrison rail operations, authorizations, and utilization of domiciled rail, with the exception of Installation Management Command (IMCOM) managed garrisons.
- (4) Coordinate with the U.S. Army Transportation School to ensure certification and recertification of locomotive engineers on AMC installations.

d. The Commander, TACOM LCMC, will—

- (1) Act as the initial requirements document developer for all locomotives, rolling stock, and track maintenance equipment.
- (2) Control the serial numbering and lettering of all DOD-owned railroad equipment.
- (3) Provide a representative to serve as a member of the ILMC.
- (4) Act as the central point for delegation of acquisition of DOD rail assets by the Department of Transportation, Volpe National Transportation Systems Center.
- (5) Provide for performance of depot maintenance for Army utility rail equipment in the continental United States (CONUS) by Army-owned rail equipment repair facility and/or by commercial contract.
- (6) Disburse funds for repair of Army utility freight equipment repaired under the provisions of the AAR Interchange Manual.
- (7) Provide technical assistance service for the Military Surface Deployment and Distribution Command (MSDDC) Defense Freight Railway Interchange Fleet (DFRIF) as requested. Management and maintenance of DFRIF are governed by the Defense Transportation Regulation 4500.9-R.
- (8) Provide for command and control of rail equipment Sustainment maintenance through the Defense Generator and Rail Center (DGRC).

(9) Provide, through the DGRC, Sustainment and/or Field (unit level) maintenance to other DOD components having an Inter-Service Support Agreement (ISSA) with the IMCOM.

(10) Ensure that the Director, DGRC establishes and executes a locomotive readiness system.

(11) Provide a representative to serve as a member of the ILMC.

e. The Commanding General, U.S. Army Training and Doctrine Command will—

(1) Determine which Army rail equipment, doctrine, and equipment applications best support current and future Army concepts for Reserve Components (RC).

(2) Administer DOD locomotive engineering certification programs in accordance with Section 240, Title 49, Code of Federal Regulations (49 CFR 240) by using virtual and constructive simulations to the fullest extent possible to support training.

(3) Provide facilities and curriculum for certification of locomotive engineers and train crews; recertification of locomotive engineers and train crews; and annual “check rides” (see paras 3–3 and 3–4).

f. The Commander, IMCOM will—

(1) Manage, program, and execute the assigned garrison rail operations, authorizations, and utilization of domiciled rail, with the exception of AMC-managed garrisons.

(2) Provide command oversight and approval of IMCOM installation’s rail tables of distribution and allowances (TDA).

(3) Conduct periodic reviews of domiciled railroad operations, maintenance, and utilization.

(4) Coordinate with the Transportation School, Fort Eustis, for the certification and recertification of locomotive operators at installations.

(5) Provide a representative to serve as a member of the ILMC.

(6) Oversee railroad locomotive, rolling stock, and track maintenance of way equipment distribution program within IMCOM.

(7) Direct redistribution/lateral transfer of rail assets within CONUS (for IMCOM installations).

(8) Establish DA policies for maintaining, repairing, and improving railroad trackage in accordance with AR 420–1.

(9) Provide DA staff supervision and technical direction related to rail trackage maintenance, including promulgating rail trackage maintenance standards.

(10) Maintain an inventory of Army railroad trackage and related facilities in accordance with AR 405–45 and AR 415–28.

(11) Maintain an inventory of Army military real property in accordance with AR 405–45 and AR 415–28. The inventory will show the identification, measurement, and condition of all the railroad tracks, including spurs, sidings, yards, turnouts (with accessories and appurtenances), and railroad bridges at each military installation.

(12) Maintain current DA locomotive replacement criteria for the installations.

g. The Commander, MSDDC will—

(1) Ensure that rail equipment in interchange service meets FRA and AAR standards and is incorporated into the DFRIF.

(2) Have the final authority to approve, disapprove, or modify any request to reduce temporarily the minimum number of DFRIF flatcars in the prepositioned pools.

(3) Provide management and policy implementation for all military ocean terminals under direct control of the MSDDC.

(4) Assume responsibilities for rail management and rail policy for all AMC depots and ammunition plants, since MSDDC is under administrative control of AMC.

(5) Provide a representative to serve as a member of the ILMC.

1–5. Army rail policy

a. Regulatory compliance. All Army activities and installations will comply with 49 CFR 200 through 49 CFR 299. When compliance with the CFR is not possible because of funding constraints, deviation requests will be submitted to HQ for approval. All solicitations for contracted operations will include compliance with 49 CFR 200 through 49 CFR 299.

b. Rail resources. Rail assets will be acquired according to the availability of commercial rail transportation assets. Army-owned rail equipment for use in CONUS will generally be standard, commercially designed equipment comparable to equipment being used in commercial industry.

c. Rail maintenance. Equipment acquired to operate in interchange service as part of the DFRIF will be maintained in accordance with AAR and FRA rules and practices. Utility rail equipment will be maintained to the same general standards practiced by private industry operating similar fleets.

Chapter 2 Determination and Authorization of Requirements

2-1. Locomotives

a. Peacetime and mobilization requirements for locomotives will be based on specific rail inbound and outbound requirements. IMCOM will identify the appropriate planning documents that each type of Army installation will use when requesting a locomotive.

b. The installation will submit a request for a TDA authorization in accordance with AR 71-32. Assistance and advice with requirement computations can be obtained from Headquarters, IMCOM.

c. Built-new equipment, especially new locomotives, have improved operating and maintenance characteristics stemming from design improvements and not simply from the lack of wear and tear. Prior to the assignment of built-new equipment to an installation, a TDA review will be conducted to determine the extent, if any, to which the characteristics of the new equipment enable a reduction in the quantity of that equipment type as found on the current TDA of the gaining installation.

2-2. Track maintenance equipment and rolling stock

Peacetime and mobilization requirements for equipment and rolling stock that will be used solely by Army utility railroads will be based on the same planning documents used in computing locomotive requirements.

Chapter 3 Operations and Safety

3-1. Utility rail operations

a. Army-operated utility railroads. Army installations possessing trackage will be operated by the connecting commercial carriers unless it is not economically or operationally feasible to do so.

b. Lease/contract approvals. Approval authority for leases or contracts related to utility railroad operations is vested with the installation commander. IMCOM will be responsible for reviewing any leases or contracts made by their subordinate activities.

3-2. Rail safety

a. All commands and agencies operating or using Army-owned, -rented, or -leased utility rail equipment will develop and implement a rail safety program. The program will comply with applicable safety procedures, using the following publications as guides where appropriate:

- (1) General Code of Operating Rules.
- (2) TM 55-203.
- (3) 49 CFR 200-299.
- (4) AAR Interchange Manual.
- (5) Airbrake and Train Handling Rules.
- (6) General operating orders (Army).
- (7) Rail operating bulletins (installations).

b. Installation maximum speed limits are determined by category of track. Within the Army, Category A track is considered between FRA Class II and III and speed is limited to 35 miles per hour, unless approved by the rail officer.

c. The rail dispatcher will determine the working speed of trains within their area of responsibility. Service will be suspended where minimum track safety standards are not met, and a temporary operating restriction will be put in place by the installation certified track inspector (CTR). The CTR will immediately notify the installation transportation officer (ITO), orally and in writing, of any track conditions requiring train operations to be restricted or suspended and the projected repair date and time. The ITO will immediately notify the installation director of public works of any adverse conditions found while operating rail equipment.

d. The track will be inspected at frequencies stated in TM 5-628, chapter 2.

e. Accident notification, in addition to that required by DA Pam 385-40, will be as follows:

- (1) Notify IMCOM rail officer within 3 working days of a nonserious rail incident.
- (2) Immediately notify the IMCOM Operations Center of any derail or accident that results in a debilitating injury or death.

(3) Immediately notify the IMCOM Operations Center of any accident/incident involving a motor vehicle or pedestrian at a grade crossing or on any installation track.

f. For accidents in paragraph 3-2c(2) or 3-2c(3), below, an accident investigation team will proceed to the site of the accident immediately.

- (1) The team will consist of—

- (a) The IMCOM rail operations officer or a designated representative.
- (b) The designated supervisor of locomotive engineers (DSLE) from the Transportation School, Fort Eustis.
- (c) The Chief, DGRC, or a designated representative.
- (d) The Transportation School rail safety officer.
- (2) The team leader will be the senior member of these 4 activities on site.
- (3) The goal of this team is to—
 - (a) Investigate circumstances surrounding the accident.
 - (b) If possible, determine cause(s) relating to the accident, to include any extenuating circumstances.
 - (c) Interview personnel to establish facts.
 - (d) Determine any operational deficiencies that could be a contributing cause.
 - (e) Download event recorder.
 - (f) Identify what training is necessary to preclude the reoccurrence of the accident.
 - (g) Publish lessons learned and address required procedural changes.
 - (h) Support any outside agency investigating the accident (for example, the FRA, National Transportation Safety Board, and so on).
 - (i) Provide the garrison commander/manager with documentation for the Report of Survey, as necessary.

3–3. Operator certification

- a. Each installation with one or more locomotives on its TDA will employ or contract for the services of at least 2 certified locomotive engineers (CLE).
- b. Each CLE will have a check ride by a DSLE, annually.
- c. Recertification is required triennially.
- d. The Army DSLE will be located at the Transportation School, Fort Eustis, and will be responsible for the certification and recertification.
- e. IMCOM and AMC will also maintain a DSLE for installation operations and are authorized to assist the Army DSLE as needed to avoid disruption of mission.
- f. Prospective CLE candidates will be issued the OF 346 (U.S. Government Motor Vehicle Operator’s Identification Card), with the learner’s permit (valid only when accompanied by a CLE).
 - (1) The candidate must pass the written test in TB 600–1.
 - (2) The candidate must comply with 49 CFR Parts 240.111, 240.113, 240.115, 240.117, 240.119, and 240.121.
 - (3) Each candidate will have a minimum of 6 months of experience as a trained crewmember (brakeman/switcher) and 6 months as an engineer in training.
- g. For revocation of certification in accordance with 49 CFR 240.307, a reciprocal relationship will exist between the Transportation School, Fort Eustis, and IMCOM when one or the other DSLE is the investigating officer.

3–4. Rail crew qualification

- a. All rail crewmembers will receive training in crew operations.
- b. Initial hire of civilian or contractor personnel will be training via on the job and documented on a retained training record.
- c. Within the first year, crewmembers will attend the 80-hour Rail Crew Qualification Course at Fort Eustis. Those individuals who have attended and been awarded an 88U military occupational specialty, have attended the Locomotive Engineer Certification Course, have worked on a commercial railroad for at least 2 years, or have been in their present rail crew job for at least 3 years are exempt from the initial 80-hour Rail Crew Qualification Course.
- d. Sustainment training will consist of Web-based instruction and hands-on at the installation, as well as daily safety training. Installation rail crew operating personnel will be responsible for conducting/performing refresher training. Requalification training will be accomplished via a Web-based test.

Chapter 4 Acquisition

4–1. Standardization

Locomotive power will be of commercial design with types and models restricted to the minimum number consistent with current and projected requirements. Rolling stock and track maintenance equipment will be similarly standardized to the maximum extent possible.

4-2. Procurement criteria

a. For Army-owned rail equipment to be eligible for procurement, retention, maintenance, or upgrading, it must meet one of the following criteria:

(1) It is a specialized type of equipment peculiar to the military and not readily available from commercial lease sources, not available in the quantity needed, or not available in the lead time required to meet military needs.

(2) The equipment is needed to meet overseas or mobilization requirements.

(3) The equipment is needed to meet utility railroad requirements of a military activity.

(4) The cost of obtaining locomotive service from commercial sources exceeds the cost of owning and operating military-owned equipment and would be wasteful of public funds.

(5) The equipment is required for actual deployment of active and RC units and would result in mission failure if not on hand and in good operating condition.

b. Because of long lead times to procure rail equipment, all requirements will be on hand, as identified by peacetime TDA or mobilization TDA.

Chapter 5 Numbering and Lettering of Equipment

5-1. Marking standards

The assignment of numbers and letters applies to all DOD-owned railroad equipment with a Federal supply group of 22. Numbers and letters of DA-owned railroad equipment will conform to the standards in TM 55-203.

5-2. Reporting marks

a. The MSDDC is the DOD signatory of the Interchange Agreement, the signing of which by car owners is required before their cars can be operated on commercial railroads. The MSDDC has two reporting marks, DODX and USAX, assigned to it by the AAR.

b. All cars purchased or leased by any military Service or agency with the intention of being operated in interchange service are required by DOD regulation to be transferred to the MSDDC upon acceptance. The MSDDC is responsible for the operation and maintenance of these cars, which are assigned DODX reporting marks. Cars purchased or leased by the Army but not intended for interchange service are assigned USAX reporting marks. As information, other reporting marks assigned to the Services for equipment not intended for use in interchange service are DAFX and USNX.

c. Railroad equipment operated in interchange service must also be registered in the Universal Machine Language Equipment Register (UMLER), which is maintained by RAILINC Corporation, a subsidiary of the AAR. The MSDDC maintains the UMLER file for Service-owned equipment. Registration in UMLER may be required for noninterchange equipment to enable it to move on its own wheels when being transferred between installations.

d. On rare occasions it may be desired to use Service-owned equipment that meets current railroad design and maintenance requirements in interchange service. Prior approval from the MSDDC is required to do this.

5-3. Allocation of numbers

TACOM will assign numbers to all Army-owned railroad equipment. The number of digits used will be limited, when possible, to 5 digits in CONUS and 6 digits outside the continental United States (OCONUS). CONUS freight cars will be classified according to AAR car type code, using the code and mechanical designation in addition to the description. This system aids recognition of the type of equipment by car number without physical inspection. Groups of numbers will be allocated as listed in appendix B.

5-4. Renumbering

Existing railroad equipment will not be renumbered unless TACOM issues such instructions.

5-5. Removal of markings

Upon disposal instructions to the Defense Reutilization and Marketing Service (DRMS) (or for plant clearance for Government-owned, contractor-operated installations), remove reporting marks from all rail equipment. Do not change the numbers.

Chapter 6 Management of Army Rail Equipment

6-1. Inventory

IMCOM and commanders of each Army Command/Army Service Component Command/Direct Reporting Unit (ACOM/ASCC/DRU) with rail equipment not assigned to IMCOM will designate a point of contact to maintain an inventory record of all Army-owned locomotives and rolling stock within that command.

6-2. Reporting procedures

See AR 710-3.

Chapter 7 Maintenance Support for Railroad Equipment

7-1. Maintenance program responsibilities

a. The TACOM LCMC is responsible for—

(1) Maintenance of utility rail equipment used by DA and other DOD agencies having ISSA or memorandum of agreement (MOA) with TACOM LCMC. Maintenance inspections are recorded on DD Form 1144 (Support Agreement).

(2) Operation of DGRC to provide sustainment maintenance on this equipment. TACOM LCMC will ensure that adequate support is available to handle other service requirements on a reimbursable basis.

(3) Provide training support for Army rail units upon request by the MSDDC.

b. The TACOM LCMC will coordinate depot-level maintenance funding.

c. The TACOM LCMC will coordinate depot-level maintenance requirements of other DOD components.

d. Installations are responsible for—

(1) *Field maintenance.* The operator and crew of railroad equipment and qualified maintenance personnel (as defined in the glossary) will provide its organizational maintenance. They will report maintenance data on DD Form 862 (Daily Inspection Worksheet for Diesel-Electric Locomotive and Locomotive Cranes) and Form FRA F6180-49A (Locomotive Inspection and Repair Record). DGRC is available on request to augment the installation's organizational maintenance capability on a reimbursable basis.

(2) *Sustainment maintenance.* Installation commanders will request Sustainment maintenance of assigned equipment from DGRC. The DGRC representative will complete the annual inspection portion of FRA F6180-49A during the inspection.

7-2. Repair parts supply support

a. For guidance on how to obtain organizational maintenance repair parts not available through normal local supply channels, contact DGRC.

b. The DGRC will—

(1) Verify that the repair parts are required for organizational maintenance.

(2) Provide ordering information for local purchase. These local purchases are subject to limitations in the Federal Acquisition Regulations.

7-3. Mandatory inspections

To ensure that rail equipment is maintained and reported in compliance with FRA and Army regulations, DGRC representatives will conduct a mandatory technical inspection of all assigned Army locomotives and rail cars at least once every 12 months. Inspections will be made for other DOD components that request and provide funds for this service. The inspection will be conducted regardless of the means of maintenance support and/or the organization providing the support.

7-4. Funding

a. The TACOM LCMC provides funds for Sustainment maintenance for Army installations directly to the DGRC. These installations will not cite consumer requisitions funds.

b. Customers other than Army installations will reimburse DGRC using a military interdepartmental purchase request. These customers include government furnished property at contracted installations, DOD agencies covered by ISSA (see DD Form 1144), and other Federal agencies requesting DGRC support.

Chapter 8 Repair, Replacement, and Disposition of Railroad Equipment

8-1. Overview

Maintenance of railroad equipment involves three types of repair: Overhauling, rebuilding, and remanufacturing.

8-2. Repair criteria

a. Maintenance expenditure limits. The maintenance expenditure limit (MEL) is the total allowable one-time cost to restore an end item, subsystem, or component to a fully serviceable condition as prescribed in the appropriate technical manual or depot maintenance work requirements. The criteria to be used in computing MELs are described in AR 750-1. MELs are used to determine the economic feasibility of overhauling an end item given its current age and its expected life. The MELs are published in TB 43-0002-35.

b. Technical inspections. An experienced, technically qualified rail technician will inspect all rail equipment at least once annually. Unserviceable equipment will be inspected by a qualified rail technician before repair or before being sent to the next higher supporting maintenance facility for repair or disposal. The inspection report will include defects and malfunctioning components and the estimated cost of restoring the equipment to standard operating condition. The objectives of the technical inspection are to—

- (1) Ensure that equipment meets Army safety and maintenance standards.
- (2) Determine the economical reparability of DOD material at Field and Sustainment levels of maintenance.
- (3) Prevent the evacuation of uneconomically repairable equipment unless specifically required and directed.
- (4) Preclude equipment loss to the DOD based solely on age.

c. Estimating repair costs. Before preparing detailed cost estimates, the equipment manager will review previous work orders to determine whether similar items in a similar condition have been repaired. If a work order exists, use the actual work order cost as the estimating basis. Using prescribed operation and maintenance inflation factors to reach an estimate of repairing, the component will accelerate old work order cost.

(1) *Cost elements.* If no previous work order of a similar repair is available, the estimated repair costs will be computed using the following cost elements: Direct labor (military and civilian), direct materials, indirect or overhead costs, contractual services, and shipping costs. These costs are described individually below:

(2) *Direct labor costs.* Direct labor is work by civilian or military personnel that is specifically related to the repair or overhaul job. It includes only personnel who have direct productive contact with the equipment or service involved. Initial and final inspections are included in this category.

(a) Estimate direct labor costs by determining the number of applicable direct labor hours and then applying current pay rates plus the cost of annual, sick, and other leave, as well as Government contributions for employee benefits.

(b) Determine the direct labor hours to be applied based on work-hour requirements for maintenance tasks listed in applicable publications, such as commercial flat-rate manuals, on similar work previously performed, or on individual experience.

(c) Base estimated civilian labor costs on the labor rate of the individuals who actually perform the service. When civilian labor pay scales are stated in terms of annual salaries, compute costs by converting work-years to average productive working hours. In either case, include the cost of annual, sick, and other leave and Government-contributed fringe benefits in the labor rates.

(d) Base estimated costs of military labor on the average military wage rate for the individuals performing the work, assuming standard costs.

(e) Heads of DOD components or their designees may establish and use standard hourly rates for direct labor including indirect and overhead costs. Separate rates will then be established for field and sustainment, and depot maintenance for each category of supportable equipment listed for rail and each major geographical area where wage levels vary greatly.

(3) *Direct materials costs.* Direct materials are all materials used in repairing or overhauling a particular piece of equipment, including Government-furnished material used by a private contractor.

(a) Figure cost estimates of consumables at the standard inventory price as published in appropriate supply manuals. Material to be obtained from local sources will be priced at the latest invoice cost. Cost of material will be the actual cost of fabrication. When actual costs are not available, use commercial/government rail shop estimates.

(b) When credit is given for a serviceable return, it will be the full price minus the applicable surcharge and a small risk mitigation factor. When credit is given for an unserviceable return, it will be the full price minus the applicable surcharge, washout rate, repair cost, and a risk mitigation factor. TACOM will establish the risk mitigation factor value and provide it to AMC annually. No additional factors will be included in the credit given for an item.

(4) *Indirect and overhead costs.* Include the indirect or overhead costs associated with the process in the repair or overhaul cost estimate. Determine these costs by applying the indirect or overhead rate to the estimated direct labor hours. Include the following in the costs used to develop the indirect or overhead rate:

(a) Manufacturing or production expense, such as indirect costs incurred by the maintenance shop or organization performing the repair work, although not identifiable to a particular repair or overhaul job.

(b) General and administrative expenses, such as costs incurred in general management or supervision, which are measurable costs chargeable to maintenance units and activities.

(c) Contractual services. Include in the estimate contractual service costs related to the performance of all or part of the maintenance job.

(d) Shipping costs. Include all costs involved in preparing the material for shipment and transporting and handling it from the point of use to the point of repair.

(e) Excluded costs. Do not include the following elements in depot repair or overhaul unit cost estimates:

1. Replacement of nonintegral components of basic issue items.
2. Items of operating expense, such as replacement of batteries, antifreeze, and petroleum products, except where the replacement is required as a result of accidental damage.
3. The labor cost of applying modification work orders except when the amount of labor is so small that it causes no major material distortion in either modification or other depot maintenance costs.
4. The cost of overhauling or replacing accessory items used to adapt equipment for special uses.
5. Adjusting repair cost and work-hour estimates.

(5) *Equipment reporting.*

(a) When unserviceable equipment is reported to the commodity manager based on repair cost estimates, the commodity manager will compare the labor rate used by field personnel with the labor rate of the depot maintenance facility selected to complete the maintenance. The repair cost estimate will be adjusted to reflect depot maintenance labor rates before a decision is made as to the disposition of the equipment.

(b) When equipment is reported to the commodity manager based on work-hour estimates, the commodity manager will convert the direct labor work hours and other information related to the maintenance effort to a repair or overhaul cost estimate in dollar amounts as prescribed in this regulation. This will be done before a decision is made as to the disposition of the equipment.

d. Waivers.

(1) Heads of DOD components, IMCOM, or their designees have authority to approve requests for waivers of published maximum repair and overhaul allowances when the required maintenance can be accomplished at the organizational, direct support, or general support level. Required repairs will not be broken into separate job estimates merely to bypass prescribed maximum repair allowances.

(2) In approving such requests, commanders will ensure that—

(a) The unit or organization requesting the waiver has been unable to obtain timely replacement of the uneconomically repairable equipment by checking with the appropriate commodity manager.

(b) An urgent operational or essential training requirement justifies the uneconomical repair.

(c) Resources are available (or can be made available) to the requesting organization or command to do the required repairs within an acceptable period. Normal maximum time is 60 days.

(d) Unit and activity commanders requesting material waivers will submit copies of the technical inspection report, with justification for the uneconomical repair, through proper support maintenance channels to DOD service commanders for approval.

e. Waivers by national maintenance point/national inventory control point. national inventory control point (NICP)s in coordination with the proper national maintenance point (NMP) may grant waivers to publish maximum one-time repair and overhaul allowances when the required maintenance will be accomplished at the depot maintenance level and operational requirements necessitate such.

8-3. Replacement criteria

A determination by TACOM of whether to procure a piece of equipment will be based on the unit price of equivalent or like equipment currently being produced, as identified in trade journals and market analysis, rather than on the Federal Logistics Information System unit price.

8-4. Remanufacture criteria

The determination by TACOM to remanufacture rail equipment rather than overhaul it will be evaluated case by case. The justification will be substantiated with an approved product improvement program that considers the price as well as technological improvements.

8-5. Disposition of equipment

a. All reports of excess/requests for disposition of USAX and DODX equipment will be directed to TACOM. As the DOD rail focal point, TACOM determines whether a serviceable item is eligible for disposal or for transfer as an excess asset within Army and within DOD. TACOM will provide disposition instructions to the requesting DOD activity.

b. The installation will submit DA Form 3590 (Request for Disposition or Waiver) and DD Form 1348 (DOD Single Line Item Requisition System Document Manual) and either DD Form 1335 (Field Inspection Data USA, USAX,

USNX, DODX rail cars) (for railcars) or DA Form 2404 (Equipment Inspection and Maintenance Worksheet) (for equipment other than railcars) to the Army Command.

c. The installation will ensure that all USAX and DODX reporting marks are completely removed from the equipment before it is transferred to the DRMS.

8-6. Maintenance performance

Performance of maintenance will be in accordance with TM 55-203 and other technical manuals related to specific items of equipment. Maintenance reporting and recording for all DOD components will be in accordance with DA Pam 750-8.

a. Organizational maintenance on assigned utility rail equipment is the responsibility of the user.

b. Depot maintenance is governed and programmed by TACOM.

8-7. Rolling stock operating in interchange

DOD component passenger and freight equipment moving in interchange service over commercial railroads are subject to the standards established by the AAR and the FRA/DOT. Running repairs and maintenance are performed by the handling railroad under provisions of the AAR Rules of Interchange. Bills and supporting papers applicable to equipment assigned to the DFRIF are rendered by the railroads to the MSDDC for payment. On occasions when utility rail equipment is repaired by interchange railroads, applicable bills are rendered to TACOM for payment.

Appendix A References

Section I Required Publications

AR 71–32

Force Development and Documentation-Consolidated Policies (Cited in para 2–1.)

AR 420–1

Army Facilities Management (Cited in para 1–4f(8).)

Section II Related Publications

A related publication is a source of additional information. The user does not have to read it to understand this regulation.

AR 5–20

Competitive Sourcing Program

Pam 385–40

Army Accident Investigation and Reporting

AR 405–45

Real Property Inventory Management

AR 415–28

Real Property Category Codes

AR 710–3

Inventory Management Asset and Transaction Reporting System

AR 750–1

Army Material Maintenance Policy

Pam 750–8

The Army Maintenance Management System (TAMMS) Users Manual

FM 4–01.41

Army Rail Operations

TB 43–0002–35

Maintenance Expenditure Limits for FSC Group 22; FSC Classes 2210, 2220, 2230 (Available at <https://www.logsa.army.mil/etms>)

TM 55–203

Maintenance of Railway Cars

TB 600–1

Procedures for Selection, Training, Testing And Qualifying Operators of Equipment/Systems, Excluding Selected Watercraft and Aircraft, Managed/Supported by U.S. Army Troop Support and Aviation Materiel Readiness Command

TC 55–88–1

Rail Handbook for Air Brake and Train Handling Rules

TM 5–628

Railroad Track Standards

DOD 4140.50–R

Management and Standards of DOD Locomotives

49 CFR 200–299

Federal Railroad Administration, Department of Transportation

AAR Interchange Manual

Rules for Interchange of Railroad Cars (Available from the Association of American Railroads, 50 F St. NW, Washington DC 20001–1564.)

GCOR

General Code of Operating Rules, Fifth Edition (Available at <http://www.transchool.eustis.army.mil/rail-safety>.)

Section III

Prescribed Forms

DD Form 862

Daily Inspection Worksheet for Diesel Electric Locomotive and Locomotive Cranes (Prescribed in para 7–1.)

Section IV

Referenced Forms

DA Form 2404

Equipment Inspection and Maintenance Worksheet

DA Form 3590

Request for Disposition or Waiver

DD Form 1144

Support Agreement

DD Form 1335

Field Inspection Data USA, USAX, USNX, DODX Rail Cars

DD Form 1348

DOD Single Line Item Requisition System Document (Manual)

Form FRA F6180–49A

Locomotive Inspection and Repair Record (Available from the Federal Railroad Administration, 1120 Vermont Ave NW, Washington, DC, 20590.)

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U.S. Government Motor Vehicle Operator's Identification Card

Appendix B

Equipment Numbering

B–1. General numbering guidelines

Each item of DA-owned rail equipment receives an identifying number. The number of digits used is limited, when possible, to five in CONUS and six OCONUS. Tables B–1 through B–7 show how the numbers are allocated.

B–2. Numbering guidelines for special cars

Railway equipment listed in table B–1 will be marked with the letter prefix as indicated and numbered consecutively from 1 through 9999 (and higher if necessary) for each grouping of equipment for both standard gauge (56–1/2 inches) and multigauges (56–1/2 inches, 60 inches, 63 inches, 66 inches).

**Table B-1
Special Cars-CONUS and OCONUS**

Numbers	Type or gauge	Capacity
Prefix AR	Auto railers	All
Prefix D	Dump cars	All
Prefix J	Prison cars	All
Prefix M	Maintenance of way, motor cars	All
Prefix MC	Mortuary cars	All
Prefix P	Push cars	All
Prefix PM	Passenger motor cars	All
Prefix SN	Snow plows	All
Prefix T	Trackmobiles	All

**Table B-2
Standard and multigauge rolling stock-CONUS**

Numbers	Type or gauge	Capacity
C-1 through C-999	Rail cranes	All
G-1 through G-999	Guard cars	All
K-89667 through K-90000	Kitchen cars	All
MP-(serial number)	Multiple-purpose cranes	All
S-1 through S-49999	Sleepers, troop	All
W-1 through W-999	Work train cars (bunk, shop, store, crew)	All
1 through 99	Special cars (boiler, instruction, test, special device, office)	All
100 through 899	Passenger-type cars (baggage coaches)	All
900 through 999	Cabooses	All
89000 through 89099	Hospital cars (old type)	All
89100 through 89999	Hospital cars (ward, ward dressing, ambulance)	All
6000 through 18999	Tank cars (all except water)	All
19000 through 19999	Tank cars (water only)	All
20000 through 21999	Box cars	39 tons or less
22000 through 24999	Box cars	40-49 tons
25000 through 28999	Box cars	50-59 tons
29000 through 29999	Box cars	60 tons or more
30000 through 31999	Flat cars	39 tons or less
32000 through 34999	Flat cars	40-49 tons
35000 through 37999	Flat cars	50-79 tons
38000 through 38850	Flat cars	100-130 tons
38851 through 38999	Well flat cars	85-200 tons
39000 through 39199	Flat cars	100-110 tons
39500 through 39699	Flat cars	80-99 tons
39780 through 39809	Depressed center flat cars	140 tons
39810 through 39882	Flat cars (all other)	140-149 tons
39833 through 39849	Well flat cars	150-174 tons
39850 through 39898	Depressed center flat cars	175 tons

**Table B-2
Standard and multigauge rolling stock-CONUS—Continued**

39899 through 39999	Flat cars	175 tons or more
40000 through 44999	Flat cars (M-1 tank)	140-149 tons
45000 through 47999	Gondola cars	50-59 tons
48000 through 49999	Gondola cars	60 tons or more
50000 through 51999	Self-clearing gondola and hopper cars	39 tons or less
52000 through 54999	Self-clearing gondola and hopper cars	40-49 tons
55000 through 57999	Self-clearing gondola and hopper cars	50-59 tons
58000 through 59999	Self-clearing gondola and hopper cars	60 tons or more
60000 through 69999	Refrigerator cars	All

**Table B-3
Standard and multigauge locomotives-CONUS**

Numbers	Type or gauge	Capacity
600 through 999	Steam	All
3800 through 3999	Diesel electric	59 tons or less
4001 through 4199	Diesel electric	60-79 tons
4200 through 4399	Diesel electric	80-99 tons
4400 through 4599	Diesel electric	100-119 tons
4600 through 4799	Diesel electric	120 tons or more
4800 through 4999	Gas mechanical	All
5000 through 5199	Diesel mechanical	All
6000 through 6300	Hybrid	All
6500 through 6999	Gen Set	All

**Table B-4
Rail equipment other than standard and multigauge-CONUS**

Numbers	Type or gauge
1900 through 1999	Locomotives
90000 through 94999	Rail equipment other than locomotives

**Table B-5
Standard and multigauge rolling stock-OCONUS**

Numbers	Type or gauge	Capacity
C-1000 through C-1999	Rail cranes	All
G-1000 through G-1999	Guard cars	All
K-50000 through K-50999	Kitchen cars (old type)	All
K-51000 through K-99999	Kitchen cars (troop and hospital)	All
MP-(serial number)	Multiple-purpose cranes	All
S-50000 through S-99999	Sleepers, troop	All
W-1000 through W-9999	Work train cars (bunk, shop, store, crew)	All
7000 through 7099	Hospital cars (ward, ward dressing, ambulance)	All
100000 through 100999	Special cars (boiler, instruction, test, special device)	All

**Table B-5
Standard and multigauge rolling stock-OCONUS—Continued**

101000 through 109999	Caboose cars	All
110000 through 119999	Tank cars	All
120000 through 129999	Refrigerator cars	All
200000 through 239999	Box cars	19 tons or less
240000 through 299999	Box cars	20–29 tons
300000 through 359999	Box cars	30–39 tons
260000 through 399999	Box cars	40 tons or more
400000 through 449999	Flat cars	29 tons or less
450000 through 499999	Flat cars	30 tons or more
500000 through 549999	Gondola cars	29 tons or less
550000 through 569999	Gondola cars (high side)	30 tons or more
570000 through 599999	Gondola cars (low side)	30 tons or more
600000 through 699999	Self-clearing gondola and hopper cars	All

**Table B-6
Locomotives of all gauge-OCONUS**

Numbers	Type or gauge	Capacity
2000 through 2999	Diesel electric	100 tons or more
3000 through 3999	Diesel electric	49–99 tons
4000 through 5999	Diesel electric	48 tons
6000 through 6999	Diesel electric	Under 48 tons
9000 through 9999	Steam and other	All

**Table B-7
Rail equipment other than standard gauge and multigauge-OCONUS**

Numbers	Type or gauge	Capacity
700000 through 749999	Tank cars	All
750000 through 799999	Box cars	All
800000 through 849999	Flat cars	All
850000 through 899999	Gondola cars	All
900000 through 949999	Self-clearing gondola and hopper cars	All
950000 through 950499	Hospital cars	All
950500 through 959999	Caboose cars	All
960000 through 969999	Work cars	All
970000 through 979999	Special cars	All

Appendix C Army Locomotive Modernization Plan

C-1. The Army Locomotive Modernization Plan

The Army Locomotive Modernization Plan contemplates replacement of the aging installation locomotive fleet with new locomotives within a 20-year period.

C-2. Summary of the plan

a. Table C-1 summarizes the plan. There are 9 priority levels, one of which has no installations with a requirement for locomotives. Priority levels are based on installation mission:

- (1) PGP: Power Generation Platform.
- (2) PPP: Power Projection Platform, Training—locomotive is used at Army Training facilities, for either equipment movement or actual locomotive training.

b. Tier 1 and Tier II describe depots’ strategic importance: Tier I for initial surge and Tier II for sustainment ammunition flow.

- c. The Program Year Start and Finish for each priority level will be affected by 2 factors:
- (1) The level of funding has not yet reached the level at which it will support the planned purchase of 5 locomotives a year.
 - (2) Because the Army’s road-switchers are generally worked harder and in poorer condition than its switchers, implementation of the Plan will probably see all road-switchers replaced, in installation priority order, and then all switchers replaced, again in priority order.

**Table C-1
The Army Locomotive Modernization Plan**

Priority	Installation type	# Installations	# Locomotives	Program year start	Program year finish
1	PPP&PGP	2	6	1	2
2	PPP	7	22	2	6
3	PGP	0			
4	PSP	1	3	6	7
5	PORT	2	12	7	9
6	TIER I DEPOT	4	20	11	14
7	TRAINING	2	7	9	10
8	TIER II DEPOT	2	5	15	15
9	ALL OTHERS	8	16	16	19
	TOTALS	28	91		

Glossary

Section I Abbreviations

AAR

Association of American Railroads

ACOM

Army Command

AR

Army regulation

ASCC

Army Service Component Command

CLE

certified locomotive engineer

CONUS

continental United States

CTR

certified track inspector

DA

Department of the Army

DFRIF

Defense Freight Railway Interchange Fleet

DGRC

Defense Non-Tactical Generator and Rail Center

DOD

Department of Defense

DRMS

Defense Reutilization and Marketing Service

DRU

Direct Reporting Unit

DSLE

designated supervisor of locomotive engineers

FRA

Federal Railway Administration

HQ

headquarters

ILMC

Inter-Service Locomotive Management Committee

IMCOM

Installation Management Command

ISSA

Inter-Service Support Agreement

ITO

installation transportation office

MEL

maintenance expenditure limit

MOA

memorandum of agreement

MSDDC

Military Surface Deployment and Distribution Command

NMP

national maintenance point

OCONUS

outside continental United States

RC

Reserve Component

TACOM

U.S. Army Tank-automotive and Armaments Command

TDA

table of distribution and allowances

TM

technical manual

UMLER

Universal Machine Language Equipment Register

Section II**Terms****Contract switching railroad**

A commercial company that provides switching and related services on industrial in-plant or military utility railroads. Related services can include providing and/or maintaining locomotives, track maintenance, car inspections and maintenance, equipment management, coordination with connecting carriers, intermodal terminal operations, car loading, and other related logistical services.

Common-carrier railroad

A commercial railroad that transports freight for the general public. The Department of Transportation, the Federal Railway Administration, the Code of Federal Regulations, Title 49, and the Association of American Railroads govern common-carrier railroads.

Defense Freight Railway Interchange Fleet

Railway rolling stock owned by or leased to the Department of Defense and registered for operation in interchange service.

Interchange

The physical transfer of railroad cars, along with legal responsibility for the cars and their contents, from one common-carrier railroad to another.

Interchange service

Movement over one or more common-carrier railroads.

Maintenance

Overhaul: Restore an item to a completely serviceable condition as prescribed by maintenance serviceable standards.
Rebuild: Restore an item as nearly as possible to original condition in appearance, performance, and life expectancy.

This requires completely disassembling the item, inspecting all parts or components, and repairing or replacing worn or unserviceable elements using original manufacturing tolerances and specifications. Remanufacture: Repair a rail asset to such an extent that it meets the characteristics typical of equipment presently coming off the production line. In general, this process would require the replacement of approximately 80 percent of existing component parts with new systems.

Locomotive power

Railroad locomotives and other self-propelled equipment designed for moving rolling stock. Locomotive power includes self-propelled equipment designed to carry freight and/or passengers inside the car and car movers designed to operate interchangeably on either rubber tires or steel flanged wheels.

Qualified maintenance personnel

Individuals with a working knowledge of diesel engines, electrical systems, air systems, and other components, specifically geared to locomotives, railway cranes, and rolling stock.

Rolling stock

Railroad cars moved by a locomotive or other external means and used to transport freight or passengers. Use or design, such as box, flat, depressed center flat, gondolas, dump, hopper, tank, caboose, and passenger further categorize rolling stock.

Track maintenance equipment

Locomotive cranes, motorcars and trailers, tamping machines, and other powered machines used on or off track to inspect, maintain, and repair railroad tracks.

Utility rail equipment

Locomotives and rolling stock that are bought for or used by a utility railroad not operated off of utility railroads except when being reassigned.

Utility railroad

Privately owned and/or operated railroad that connects with common-carrier rail interchange lines. Utility railroads range in size and complexity from a simple siding to a warehouse to a complete rail network with receiving, classification, and departure yards; switching leads; interchange, running, repair, and inspection tracks; and additional tracks to ease the receipt and delivery of carload freight and provide a network for intra-installation transportation.

Section III

Special Abbreviations and Terms

This section contains no entries.

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